

## 2014 Harmful Algal Bloom (HAB) Recreational Advisory Status

During 2014, the Kentucky Division of Water (KDOW) and the U.S. Army Corps of Engineers (USACE) identified the presence of potentially harmful algal blooms based on cell counts (the number of blue-green algae cells in a milliliter of water) at Barren River Lake, Beaver Lake, Campbellsville City Reservoir, Carpenters Lake, General Butler State Park Lake, Green River Lake, Greenbrier Creek Reservoir, Guist Creek Lake, Lake Reba, Long Run Lake, McNeely Lake, Nolin Lake, Reformatory Lake, Rough River Lake, Taylorsville Lake, and Willisburg Lake.

In 2015, KDOW began working with other agencies in the state to develop protocols for sampling and issuing HABs-related advisories based on microcystin and cylindrospermopsin toxin concentrations in the water. Cyanotoxin concentrations are a more reliable indicator of potential health concerns than relying on cell counts alone, as the presence of blue-green algae does not necessarily indicate that toxins are present also.

For the 2015 recreation season, KDOW and USACE revisited the lakes that had HAB recreational advisories in 2014 and collected samples for cyanotoxin testing during June-August of 2015. If the 2014 HAB advisory for a particular lake was already lifted, the lake was revisited to confirm that cyanotoxin levels were low. If the 2014 HAB advisory remained on a lake, two sets of toxin results were collected at least a week apart. If both sets of results were below a level of concern, the advisory was lifted. As of mid-August 2015, all advisories on Kentucky lakes have been lifted. The table below provides information on the advisory status and the latest set of sample results for each lake.

### 2014 HAB Lake Recreational Advisory Status

Lake/Reservoir	Advisory Posted	Advisory Removed	Most Recent Sample Results		
			Date	Total Microcystins (ppb)	Cylindrospermopsin (ppb)
Barren River Lake	June 2014	July 2015	7/30/2015	ND	0.07
Green River Lake	June 2014	July 2015	8/19/2015	ND	0.06
Greenbrier Creek Reservoir	June 2014	October 2014	8/18/2015	0.67	0.05
Nolin Reservoir	June 2014	July 2015	7/26/2015	ND	ND
Rough River Lake	June 2014	May 2015	8/19/2015	ND	ND
Taylorsville Lake	June 2014	May 2015	7/29/2015	ND	ND
Beaver Lake	August 2014	October 2014	7/29/2015	ND	ND
Campbellsville City Reservoir	August 2014	August 2015	8/6/2015	ND	ND
Carpenters Lake	August 2014	August 2015	8/5/2015	0.42	0.06
General Butler State Park Lake	August 2014	July 2015	7/8/2015	0.66	ND
Guist Creek Lake	August 2014	October 2014	8/6/2015	ND	0.06
Long Run Lake	August 2014	October 2014	7/8/2015	ND	ND
McNeely Lake	August 2014	October 2014	7/8/2015	0.37	ND
Reformatory Lake	August 2014	October 2014	7/8/2015	ND	0.07
Willisburg Lake	August 2014	July 2015	7/15/2015	ND	ND
Lake Reba	October 2014	July 2015	8/13/2015	1.67	0.12

ND=Not detected—the toxin concentration is so low (or not present) that it cannot be measured during analysis  
ppb=parts per billion, equivalent to micrograms per liter